

Claims

1. A cell comprising an increased amount of Bcl-x_L protein, wherein the cell does not express a heterologous cyclin-dependent kinase inhibitor.
- 5 2. The cell of claim 1, wherein the cell is a mammalian, rodent, insect, or amphibian cell.
3. The cell of claim 2, wherein the cell is a human, murine, or hamster cell.
- 10 4. The cell of claim 3, wherein the cell is a hamster cell.
5. The cell of claim 4, wherein the cell is a Chinese hamster ovary cell.
6. The cell of any preceding claim, wherein the cell is adapted for growth in
15 suspension.
7. The cell of any preceding claim, wherein the cell is adapted for growth in a medium free of serum.
- 20 8. The cell of claim 7, wherein the medium comprises butyrate.
9. The cell of any preceding claim, wherein the Bcl-x_L protein is expressed from an expression vector introduced into the cell.
- 25 10. The cell of any preceding claim, wherein the Bcl-x_L protein is of a species different than that of the cell.
11. The cell of any preceding claim, wherein the Bcl-x_L protein is human.
- 30 12. The cell of any preceding claim, wherein the cell further comprises a first expression vector encoding a polypeptide.
13. The cell of claim 12, wherein the polypeptide is a secreted protein.

14. The cell of claim 12, wherein the polypeptide is a light or heavy chain of an antibody.

5 15. The cell of claim 14, wherein the first expression vector encodes both the light and heavy chains of the antibody.

16. The cell of claim 14, wherein the cell further comprises a second expression vector encoding the light or heavy chain of the antibody, wherein the first and second
10 expression vectors together express the antibody in the cell.

17. A method of producing a polypeptide, the method comprising culturing a cell of any preceding claim and purifying the polypeptide from the cell culture.

15 18. A method of producing a polypeptide, the method comprising
 providing a cell comprising an increased amount of Bcl-x_L protein,
 wherein the cell does not express a heterologous cyclin-dependent kinase inhibitor;
 introducing into the cell a first expression vector encoding a
 polypeptide; and
20 expressing the polypeptide in the cell.

19. The method of claim 18, further comprising isolating the polypeptide from the cell culture.

25 20. The method of claim 19, wherein the polypeptide is isolated from the medium of the cell culture.

21. The method of any of claims 18-20, wherein the cell is a mammalian, rodent, insect, or amphibian cell.

30 22. The method of claim 21, wherein the cell is a human, murine, or hamster cell.

23. The method of claim 22, wherein the cell is a hamster cell.

24. The method of claim 23, wherein the cell is a Chinese hamster ovary cell.

25. The method of any of claims 18-24, wherein the cell is adapted for growth
5 in suspension.

26. The method of any of claims 18-25, wherein the cell is adapted for growth
in a medium free of serum.

10 27. The method of claim 26, wherein the medium comprises butyrate.

28. The method of any of claims 18-27, wherein the Bcl-x_L protein is expressed
from an expression vector introduced into the cell.

15 29. The method of any of claims 18-28, wherein the Bcl-x_L protein is of a
species different than that of the cell.

30. The method of any of claims 18-29, wherein the Bcl-x_L protein is human.

20 31. The method of any of claims 18-30, wherein the polypeptide is a secreted
protein.

32. The method of any of claims 18-31, wherein the polypeptide is a light or
heavy chain of an antibody.

25 33. The method of claim 32, wherein the first expression vector encodes both
the light and heavy chains of the antibody.

30 34. The method of claim 32, further comprising introducing into the cell a
second expression vector encoding a light or heavy chain of the antibody, wherein the
first and second expression vector together express the antibody in the cell.